

MISSOURI DEPARTMENT OF CONSERVATION



June/July 2010

Xplor

kids' adventures in nature

**SUMMER
IS HERE!**

GRAB YOUR FRIENDS
AND FLOAT A STREAM

ON THE COVER



DISCOVER NATURE
UNDERWATER
photo by Dave Stonner

ON THE WEB

Visit www.xplormo.org for cool videos, sounds, photos, fun facts and more!



River Runners

Discover the wonders of a stream from a canoe.



Missouri's Fastest

In nature, fast animals have an edge.

DEPARTMENTS

- 1 Photos With Nop & Dave
- 2 You Discover
- 4 Wild Jobs
- 5 Yuck!
- 5 Strange But True
- 6 What Is It?
- 7 My Outdoor Adventure
- 16 Xplor More

Prairie blazing star



Carpenter ants



GOVERNOR

Jeremiah W. "Jay" Nixon

CONSERVATION COMMISSION

Don C. Bedell

Don R. Johnson

William F. "Chip" McGeehan

Becky L. Plattner

DIRECTOR

Robert L. Ziehmer

XPLOR STAFF

David Besenger

Bonnie Chasteen

Chris Cloyd

Peg Craft

Les Fortenberry

Chris Haefke

Karen Hudson

Regina Knauer

Kevin Lanahan

Joan McKee

Kevin Muenks

Noppadol Paothong

Marci Porter

Mark Railthel

Laura Scheuler

Matt Seek

David Stonner

Nichole LeClair Terrill

Stephanie Thurber

Alicia Weaver

Cliff White

Kipp Woods

Xplor (ISSN 2151-8351) is published bimonthly. It is a publication of the Missouri Department of Conservation, 2901 West Truman Boulevard, Jefferson City, MO (Mailing address: PO Box 180, Jefferson City, MO 65102). Subscription free to Missouri residents (one per household); out of state \$5 per year; out of country \$8 per year. Please allow 6-8 weeks for first issue. Notification of address change must include both old and new address (send mailing label with the subscriber number on it) with 60-day notice. Preferred periodical postage paid at Jefferson City, Mo., and at additional entry offices. **Postmaster:** Send correspondence to Xplor Circulation, PO Box 180, Jefferson City, MO 65102-0180. Phone: 573-751-4115, ext. 3856 or 3249.

Copyright © 2010 by the Conservation Commission of the State of Missouri. Vol. 1, No. 3

Send editorial comments to: **Mailing address:** Xplor Magazine, PO Box 180, Jefferson City, MO 65102-0180; **E-mail:** Xplor@mdc.mo.gov. **Please note:** Xplor does not accept unsolicited article queries, manuscripts, photographs or artwork. Any unsolicited material sent will not be returned.

Equal opportunity to participate in and benefit from programs of the Missouri Department of Conservation is available to all individuals without regard to their race, color, national origin, sex, age or disability. Questions should be directed to the Department of Conservation, PO Box 180, Jefferson City, MO 65102, 573-751-4115 (voice) or 800-735-2966 (TTY), or to the U.S. Fish and Wildlife Service Division of Federal Assistance, 4401 N. Fairfax Drive, Mail Stop: MBSP-4020, Arlington, VA 22203.

We recycle. You can, too!
Share Xplor with friends.

PHOTOS

with Nop & Dave



King Rail

photo by Noppadol Paothong

Nop Paothong likes a challenge even when it involves extreme heat and mud. He wanted to photograph the king rail, a bird rarely seen. Rails hang out in thick marsh grasses and smartweed. Their rusty-colored feathers and stripes along their sides help them blend in to their surroundings.

When Nop learned that rails were calling at B.K. Leach Conservation Area in Lincoln County, he grabbed his electronic calls and camera and headed for the Mississippi River marsh.

After several days of hiding in smartweed, he heard a response to his calls: "kek, kek, kek, jupe, jupe, jupe." Unfortunately, the sound was behind him. As he slowly turned, he saw two rails pecking his camera bag. They ran away before he could take a shot.

Now Nop knew where the birds lived. The next time he was ready when a rail came to his calls. As long as he didn't make sudden movements, the bird stayed close by. When Nop slid through the mud or adjusted his camera, the rail scurried into the grass, but came right back to have its picture taken.

"Many days I spent 12 hours under the hot sun and under constant attack by mosquitoes and ticks," Nop says. "I got some unique pictures and, for a wildlife photographer, there's no better reward."

To see more rail photos, go to www.xplormo.org/node/4576.



You discover

There's tons of fun in the sun for you to discover in June and July. Here are a few ideas to get you started.

Witness a metamorphosis.

Search the undersides of milkweed plants for yellow, green and white monarch caterpillars. Bring a few home, keep them well fed with fresh milkweed leaves, and in a few weeks the hungry little caterpillars will turn into beautiful orange-and-black butterflies. It's magical to watch them flutter away. For tips on finding milkweed and keeping your caterpillars content, check out www.monarchwatch.org.



Score a SWEET treat.

July is the heart of blackberry-picking season. The sweet, purple berries taste great by themselves, but are even yummiier baked into desserts. Blackberry bushes don't surrender their fruits to the faint-hearted, so armor up with long pants, a long-sleeved shirt and bug spray to protect yourself from thorns and chiggers. For a yummy blackberry recipe, turn to Page 16.



Catch some croakers.

Frog season opens at sunset on June 30. Put on clothes you don't mind getting muddy, grab a buddy, and head to a pond. Bring a flashlight and have your friend shine it in the face of the first frog you find. The frog will freeze, giving you time to sneak up from behind and grab it. You can let the little croaker go, or—with the right permits—bring it home for a gourmet meal. To learn the rules of froggin', visit www.mdc.mo.gov/3622.





Catch fireflies.

By now, fireflies should be flashing in parks, fields and backyards throughout the state. Catch a dozen or so, stuff them in a jar with holes punched in the lid, and let their glowing behinds be your nightlight. Just be sure to release your captives at dawn.

Land a mini-shark.

When the moon is bright and the wind is calm, head to a pond and twitch a topwater lure across its surface. In no time, the still water will erupt in a frenzy of shark-like splashing as hungry largemouth bass lunge to the surface to inhale your lure. After all that excitement, don't forget to set the hook and hang on for a fight.



Find a hidden universe.

A whole universe of life exists in places where we normally don't look. Want proof? Roll over a fallen log or turn over a rock and watch what crawls, scurries and slithers out from underneath. After you've boldly gone where no kid has gone before, be sure to put everything back in its original place.



Bag some bushytails.

Mother squirrels bear a second litter of babies in late spring, offering a bumper crop of bushytails to hunt in June and July. But just because they're young, doesn't mean they're easy. Bagging a limit requires some serious sharpshooting! Consider it summer school for fall hunting seasons, and hit the woods to practice shooting. For hunting rules and tips on cleaning squirrels, visit www.xplormo.org/node/4590.



Visit a prairie.

Every June on prairies throughout Missouri, nature puts on an early fireworks show of brilliantly blooming wildflowers. Pack a picnic lunch, bring along a butterfly net, and go on a romp through one of these multi-colored grasslands. For directions to the nearest prairie, visit www.mdc.mo.gov/76.



MDC
DISCOVER
Nature

Looking for more ways to have fun outside? Find out about Discover Nature events in your area at www.xplormo.org/xplor/stuff-do/all-events.

WILD JOBS

Fish Shocker

WARNING: THIS FISH TALE IS SHOCKING!

Kenda Flores' job is to catch fish, but she doesn't grab a fishing pole. "That's fishing," she says, "and when you're fishing, you don't always catch fish." To discover the variety of fish in a stream, Kenda straps on a backpack fish shocker, turns on the battery and wades in.

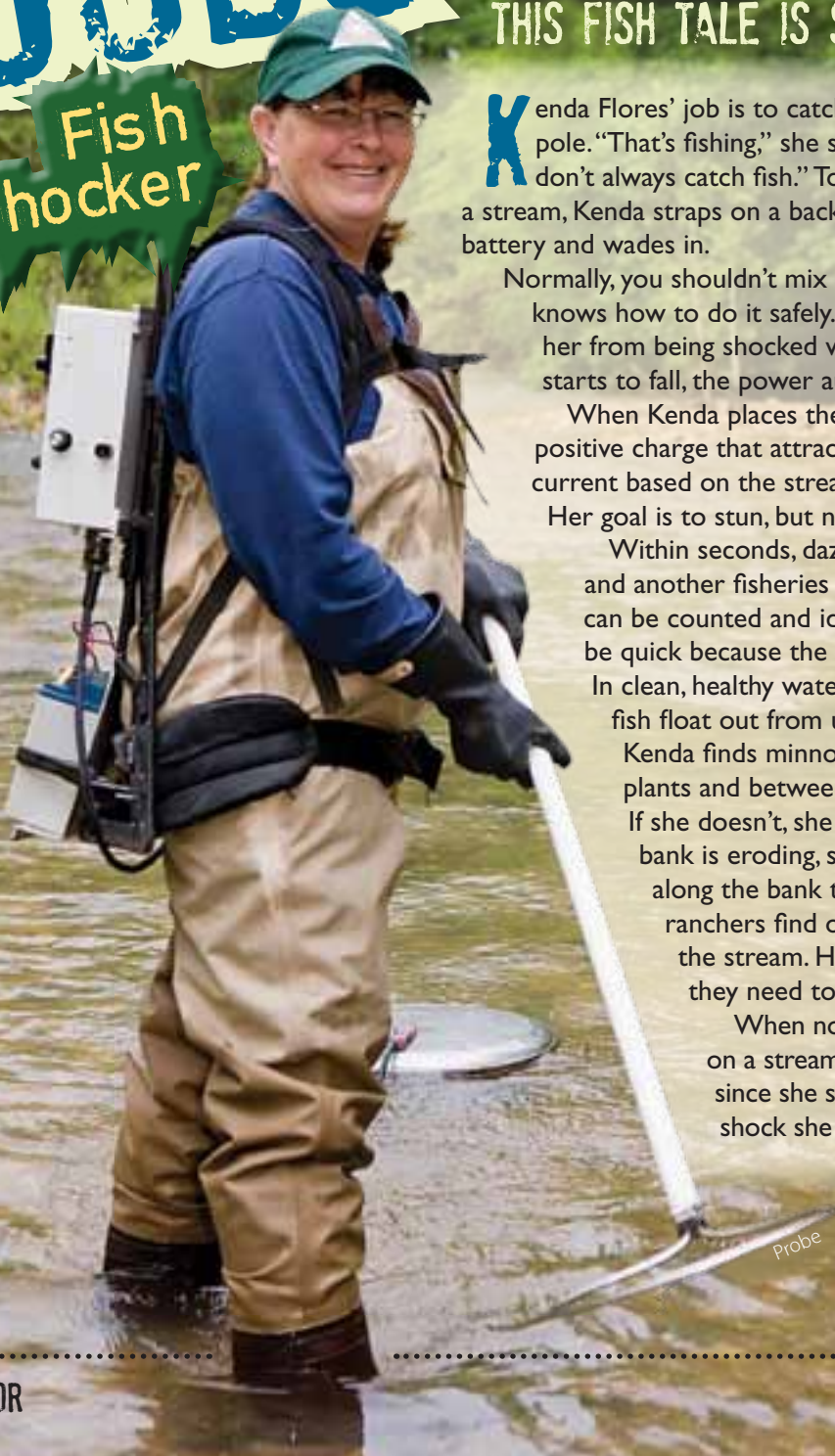
Normally, you shouldn't mix water and electricity, but Kenda knows how to do it safely. Rubber gloves and waders keep her from being shocked while standing in the water. If she starts to fall, the power automatically turns off.

When Kenda places the probe in the water, it creates a positive charge that attracts fish. She sets the intensity of the current based on the stream's temperature, depth and size.

Her goal is to stun, but not kill the fish.

Within seconds, dazed fish float to the water's surface, and another fisheries biologist quickly nets them so they can be counted and identified. The other biologist has to be quick because the fish swim off after a few seconds. In clean, healthy water, stunned bass and other large fish float out from under root wads and rock shelters. Kenda finds minnows and other small fish around plants and between rocks in the middle of the stream. If she doesn't, she looks for reasons why. If a stream bank is eroding, she helps landowners plant trees along the bank to stop the problem. She helps ranchers find other ways to water cattle than in the stream. Her goal is to help fish have what they need to survive—clean water.

When not working, you can often find Kenda on a stream or lake with her fishing pole. And, since she studies where fish hang out, it's no shock she knows how to catch them.



Probe

Yuck!

YOUR GUIDE
TO ALL THE
NASTY,
STINKY,
SLIMY AND
GROSS
STUFF THAT
NATURE HAS
TO OFFER

SPITTLE BUG SPIT

In weedy fields, look for foamy spit on some of the plants. Some folks call this snake spit or frog foam, but the frothy bubbles are actually made by an insect. Baby **spittle bugs**—also called froghoppers—suck plant sap and turn it into the spit-like bubbles. The foam makes a good cradle for the baby bugs. They hide inside, protected from heat and predators. And, by the way, it's not really spit. The foam comes from the spittle bug's *other* end.

Strange BUT TRUE

A mother crayfish is a nursery and minivan all rolled into one. In late spring, the mama mudbug lays a few hundred tiny, black eggs and glues them to her tail with a waterproof paste. When the eggs hatch, the babies, which look like itty-bitty copies of their mom, hang on to tiny legs on their mom's tail. After a few weeks of hitching a free ride, the young crayfish strike out on their own.

Crayfish

WHAT IS?

DON'T KNOW?

Jump to Page 16 to find out.



Sometimes I'm wild. Sometimes I'm not.
At my peak, I attract quite a flutter.

I have a cone, but it's never topped with ice cream.
I grow my own birdseed.

MAY

OUTDOOR

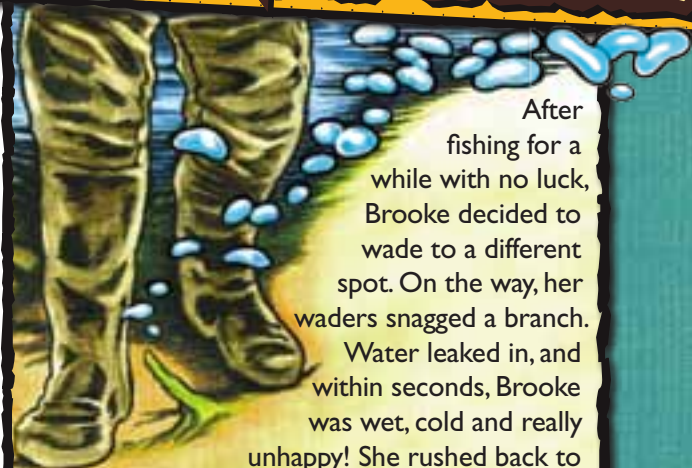
BY BROOKE TUTTLE, AGE 11

ADVENTURE

**BEEP!
BEEP!
BEEP!**

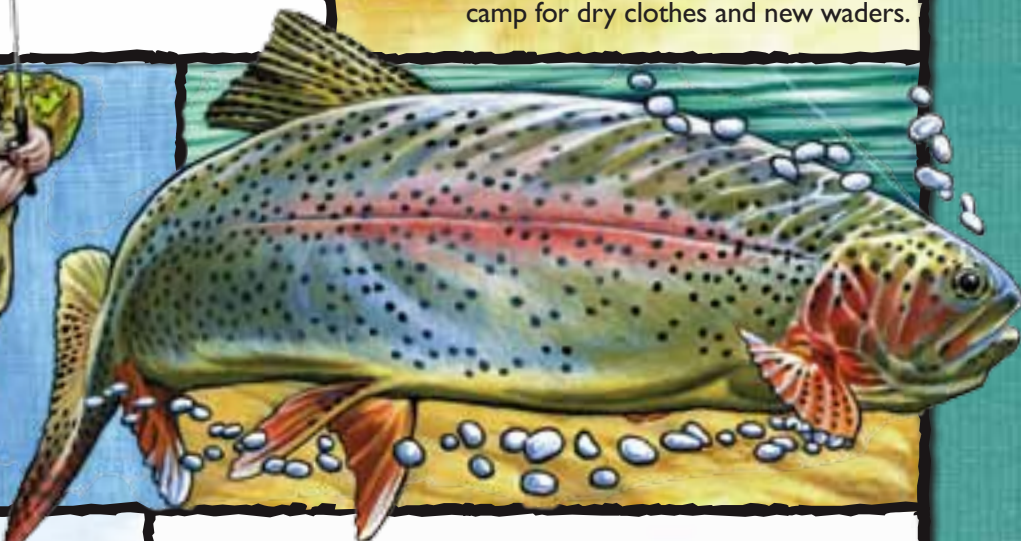


"The sun's not up," Brooke groaned. Fishing at the trout park was fun. Getting up early was not. Brooke wolfed down breakfast, grabbed her tackle, and followed her dad to the stream.



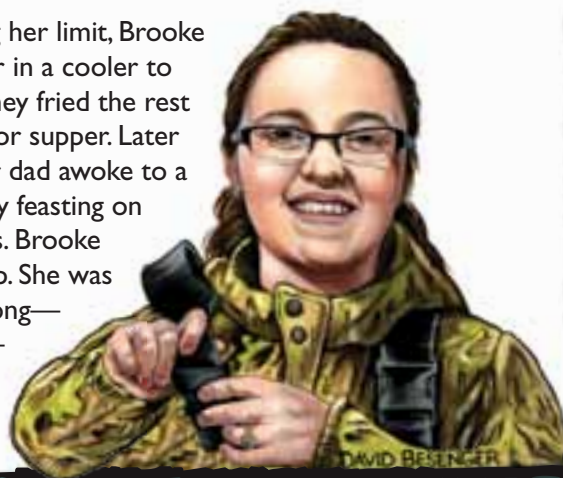
After fishing for a while with no luck, Brooke decided to wade to a different spot. On the way, her waders snagged a branch. Water leaked in, and within seconds, Brooke was wet, cold and really unhappy! She rushed back to camp for dry clothes and new waders.

In no time, Brooke was back fishing. She felt a tiny tug on her line. "Wait ... wait," she told herself. Then she felt another tug—stronger this time—and jerked hard to set the hook.



Fishing line screamed off her reel as the huge trout sped away. Brooke gave just enough slack to avoid snapping her line. When the fish finally tired, Brooke reeled it in. Her dad was ready with a net, and together they landed the biggest trout Brooke had ever seen.

After catching her limit, Brooke put the lunker in a cooler to take home. They fried the rest of her catch for supper. Later that night, her dad awoke to a raccoon family feasting on their leftovers. Brooke didn't wake up. She was beat from a long—but exciting—day of fishing.



Want to catch a lunker like Brooke did? For trout fishing tips and info, visit www.mdc.mo.gov/7248.

River Runners

by Joan McKee

photos by Cliff White and Dave Stonner

Discover the wonders of a river from a canoe. Here are some adventures and tips from a 5-mile float down the Meramec River on a sunny, summer afternoon.



GOING WITH THE FLOW

To paddle a canoe, you need to know how the river flows. The current takes you along the outside bend when the river turns. When the river is straight, the current shoots you down the middle. If you go toward shore where it is shallow, you will be out of the current. One of the best ways to see how current works is to take a swim. You'll see right away how the river moves you downstream. Also, jumping in is the best way to cool off on a hot day!





FISHING FUN

Take some worms—real or plastic (pink is a bass favorite)—and cast near brush or root wads along the shore. If you float next to a tall bluff, try casting around submerged rocks in deep pools. That's where the big lunkers lie in wait for a snack.



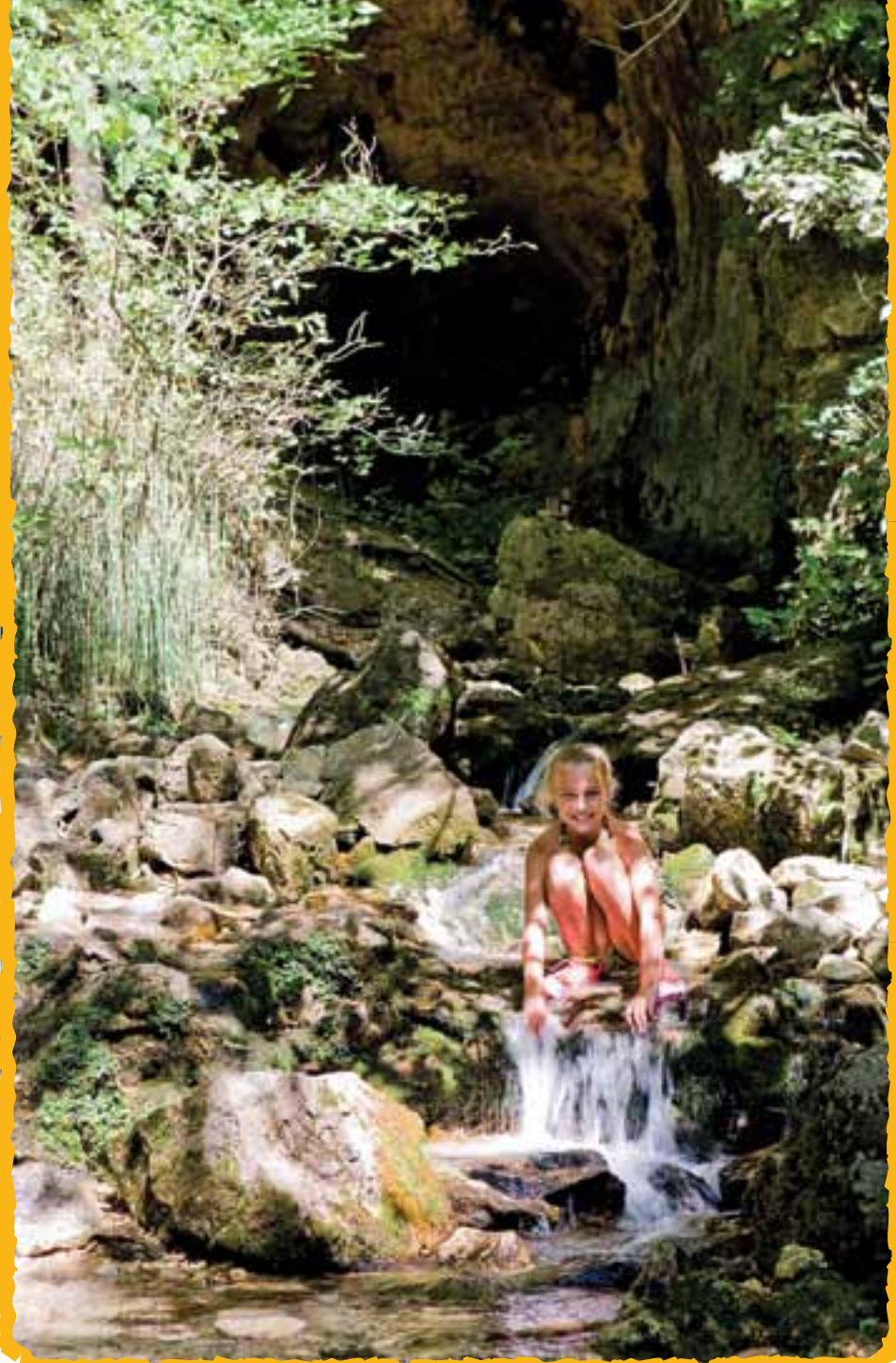
DISCOVERING CRITTERS

A net is a must for seeing small aquatic critters up close. A long-handled net can help you capture a toad or frog along the shore. To catch crayfish lurking on the bottom of the stream, carefully place the net behind the critter, then act like you are going to catch it from the front. The crayfish will try to escape your grasp by moving backward into your net. Watch out for the pincers on the big ones! Ouch!



WHAT TO BRING

- **Life vest** that allows your arms to move so you can paddle and fish
- **Sun screen** so you can stay out in the sun all day
- **Polorizing sun glasses** so you can see the fish in the water
- **Hat** to keep the sun off your face
- **Shoes** that will stay on in the current and let you walk on rocks
- **Fishing pole and lures** so you can see fish up close
- **Net** to catch interesting critters in the water
- **Flashlight** for investigating holes along the bank and exploring at night
- **Water goggles** or snorkle and mask to see what lives in the water
- **Cooler** filled with your favorite snacks and drinks



EXPLORING THE BANKS

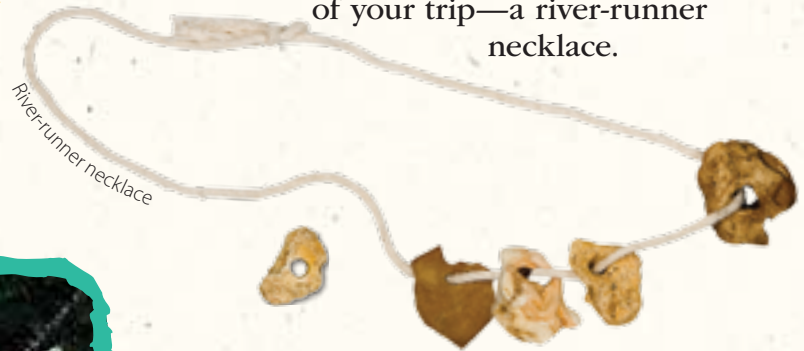
Most Missouri streams have interesting bluffs, springs, gravel bars and rock shelters that are perfect for exploring. At other places along the river, you might find small openings or holes dug in the mud banks. These may be home to beavers, mink or otters. Paddle up close, and use your flashlight to see what lurks in the dark.





ROCK HOUNDS

Ozark streams have rocky bottoms. In one chute in the Meramec River, geodes—rocks with crystals inside—were lying about 2 feet underwater. The crystals sparkled in the sun. As the fast current flows over rocks, they may erode into strange shapes. Some of these rocks provide shelters for aquatic creatures, like crayfish. When looking for river-bottom dwellers, you might find a rock with a hole in it. Use a piece of string to make a souvenir of your trip—a river-runner necklace.



BIG SPLASH

Floating with friends is best, but sometimes parents come in handy—especially if you need a boost into the air. Find a deep swimming hole and a strong adult, and let the splashing begin.



Get out of the summer heat this summer on one of Missouri's rivers. This adventure was from Sappington Bridge Access in Crawford County to Meramec State Park. For a list of outfitters to help you plan a trip, go to www.missouricanoe.org/directory.

MISSOURI'S FASTEST

by Matt Seek
illustrations by Mark Raithe

In nature, fast animals have an edge. Migrating birds that reach their destination fastest get the best food and nests. Speed helps some animals outrun danger and others catch food. Read on to learn why Missouri's quickest creatures have a need for speed.



PEREGRINE FALCON

A peregrine (*pair-uh-grin*) falcon, Missouri's fastest bird, hunts high in the sky. When it spots another bird, it folds its wings and dives. **WHOOSH!** Like a missile, the falcon free falls toward its prey at 200 miles per hour. To shield its eyes from the rush of air, the peregrine closes clear eyelids that act like goggles. In seconds, the falcon slams into the unsuspecting bird, knocking it unconscious. As its victim tumbles from the sky, the peregrine circles back to pluck it from the air for dinner.



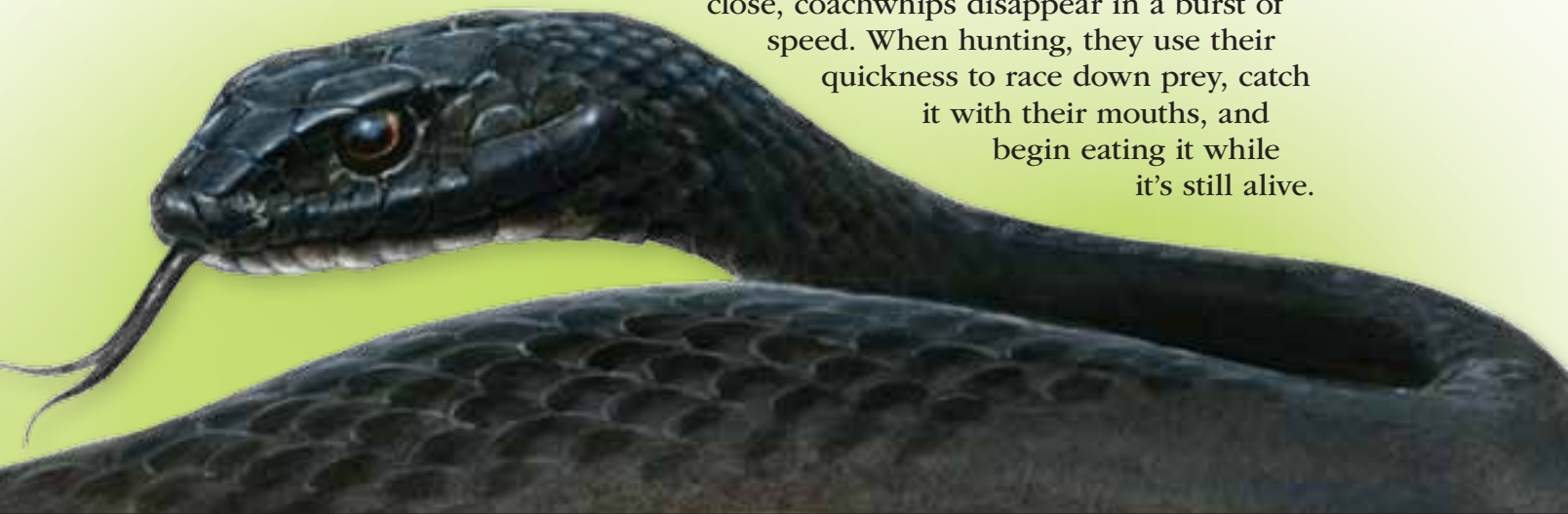
NORTHERN PIKE

Missouri's fastest fish, the northern pike, is an ambush predator. It lurks in underwater weeds with its long, torpedo-shaped body cocked into an S, waiting to strike. When another fish swims by—*SWISH!*—the pike lunges out to snare the unlucky victim in its mouthful of needle-sharp teeth. Pike are big fish that eat lots of food. But at times a pike's appetite gets the best of it. Sometimes they try to swallow fish bigger than themselves!



EASTERN COACHWHIP

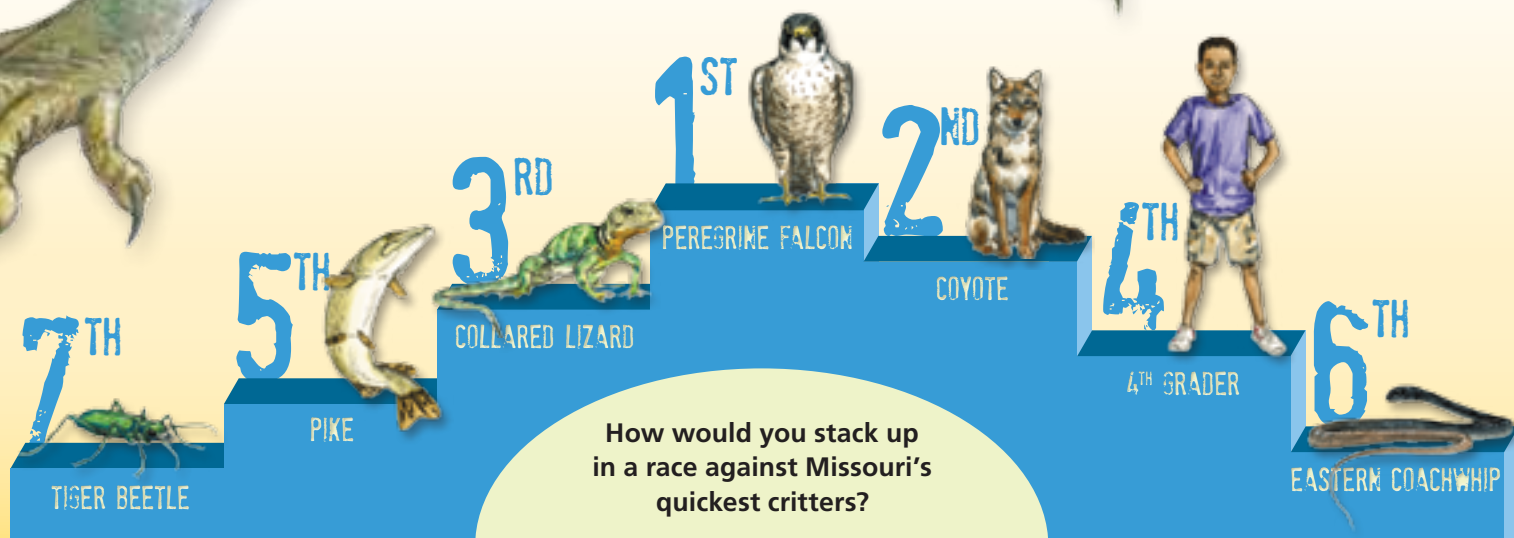
Coachwhips are so named because they look like the whips used to lash horses that pulled coaches and wagons across the Old West. These speedy serpents can slither quicker than any other Missouri snake. If a predator comes close, coachwhips disappear in a burst of speed. When hunting, they use their quickness to race down prey, catch it with their mouths, and begin eating it while it's still alive.





COLLARED LIZARD

Collared lizards, Missouri's fastest reptile, can scurry in a hurry. These colorful reptiles live on rocky glades where they have to be fast to catch insects, small snakes and other animals to eat and dash away from roadrunners and other predators. When a collared lizard has a need for extra speed, it stands up and runs on its hind legs, using its long tail for balance.



How would you stack up
in a race against Missouri's
quickest critters?



TIGER BEETLE

If Missouri's fastest insect, the tiger beetle, had legs as long as a human's, it could zip around at 240 mph—faster than NASCAR racers drive! Lucky for us, these turbo-predators, which have sickle-shaped jaws used to impale prey, are only ½-inch long. Still, for their size, tiger beetles are blindingly quick. In fact, when they dash really fast, their eyes quit working, and they have to stop and get their bearings before they can dart off again.



COYOTE

Usain Bolt, a sprinter from Jamaica, is the world's fastest human. At the Olympics, he ran the 100-meter dash in about 9 seconds, with a top speed of 27 mph. Though he's one fast mammal, in a race against Missouri's wild canines (dogs), Usain wouldn't even be in the pack. Instead, red and gray foxes would win silver and bronze medals. And coyotes (*kie-oh-tees*), which zip across our grasslands at a blistering 43 mph, would get the gold. Now that's doggone fast!



XPLOR MOR



Make a

SOMERSAULT IT! SOMERSAULT IT! BLACKBERRY COBBLER

Ingredients

- | | |
|--------------------------|---------------------------|
| 1 cup sugar | ¼ teaspoon salt |
| ¼ cup shortening | 3 cups fresh blackberries |
| ½ cup milk | 2 tablespoons butter |
| ¾ cup flour | ¾ cup water |
| 1 teaspoon baking powder | |

Instructions

1. Grab an adult to help.
2. Preheat your oven to 400 degrees. In a mixing bowl, combine ½ cup sugar and the shortening. Use a hand mixer to blend it until it's creamy.
3. Mix in the milk, flour, baking powder and salt.
4. Grease a square 8-inch cake pan and pour in the batter.
5. Top the batter with blackberries. Use a butter knife (or your fingers) to flake bits of butter on top of the berries. Sprinkle ½ cup sugar over the whole thing.
6. Bring the water to a boil and carefully pour it over the berries and batter.
7. Bake for about 30 minutes until the top turns golden brown.

What to do with the blackberries you've picked? Sprinkle them on top of a cobbler, and watch them somersault under the batter as it bakes. You'll flip, too, when you taste how yummy it is.

ANSWER TO

WHAT IS IT?

FROM PAGE 6

Pale purple coneflowers grow wild on prairies and glades. Because they're so pretty, people also plant them in their backyards. When blooming peaks from May to July, butterflies flutter in to slurp the coneflower's nectar. In the fall, birds feast on seeds made by the plant's cone.



Hide-and-Seek HERPS!

Reptiles and amphibians—herps for short—are masters of disguise. Many have markings on their skin and scales that make them blend in with their surroundings. This camouflage helps the herp ambush prey and hide from predators.

Are you a master of disguise? Color this lizard to match a background around your house, such as the flowers in your garden. Cut it out, hide it on the background, and have a friend see if they can spot it. For more herps to hide, visit www.xplormo.org/node/4581.

Cool Facts

The pattern on a prairie lizard's back helps it disappear when it's crawling over rocks or tree trunks. Flip a male lizard over, however, and you'll find a neon-blue tummy that he flashes to impress females.

Gray treefrogs can't change clothes—they don't wear any—but they can change their skin color. These quick-change amphibians turn from gray to brown to green as they climb from plant to plant.

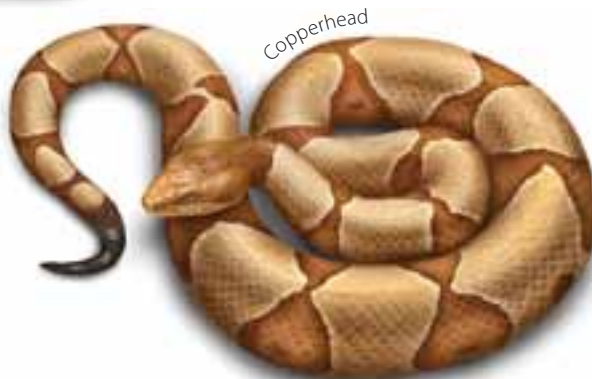
A copperhead's color and hourglass-shaped markings help it blend in with dead leaves on the forest floor. This venomous snake is a sit-and-wait predator. It finds a mouse trail, coils nearby and waits for a rodent to scurry by.



Prairie lizard

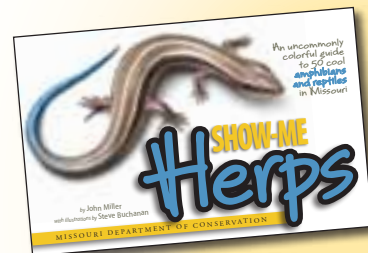


Gray treefrog



Copperhead

HELP IT DISAPPEAR



Show-Me Herps, our eye-popping guide to reptiles and amphibians, will be slithering soon to a shelf near you. Hop over to www.mdcnatureshop.com for a copy.

SUBSCRIBE ONLINE

www.xplormo.org

FREE TO MISSOURI HOUSEHOLDS

SALT MARSH CATERPILLAR



Eat your vegetables. Many of the plants nibbled on by this salt marsh caterpillar contain poisonous chemicals. The poisons won't kill the spiky-haired worm, but they do make the caterpillar taste yucky enough that predators avoid eating it.